

3 Meter Mini Compact Anechoic EMC Test Chamber

EMC - MC



- Hybrid absorber technology
- High performance - minimum space
- Flexible, modular construction system

SOLUTION FOR

EMC test sites requiring pre compliance emission and immunity testing

Main features

- Dimensions (shield) 6 m x 3 m x 2.4 m
- Performance range 26 MHz – 40 GHz
- Pre compliant Emission performance of +/- 4 dB at 3 m test distance for 80% of frequency range ANSI C63.4, EN50147/2
- Pre compliant for Immunity in accordance with EN61000.4.3
- Independently certified 100 dB @ 18 GHz shielding performance (ISO17025)
- HyPyr-Loss™ Ferrite and Hybrid absorbers for 26 MHz – 40 GHz measurements
- Optimised computer modeling to enable cost effective absorber layouts
- Bespoke and modular design enabling unlimited performance options and facilitating upgrades or relocations
- Available as a turnkey package – chamber, antenna & mast, turntables, Instrumentation and software

The EMC mini compact is the perfect addition for a test area of very limited space. The small dimensions allow the chamber to be located in normal office rooms or labs. It offers pre-compliant emission and immunity testing. The high performance and compact dimensions are achieved by the use of our SmartShield high performance shielding system combined with our specifically matched HyPyr-Loss™ ferrite and hybrid absorber solution.

When designing products which are required to conform to EMC standards, it is highly recommended that potential problems are resolved early in the process. Pre-compliance testing is a cost effective way of diagnosing and removing possible problems with the design before the necessary full compliance testing and product certification. The early diagnosis of such issues can not only dramatically reduce research and development costs, but also the initial manufacturing costs.

The advanced technology in our HyPyr-Loss™ hybrid materials, a unique combination of ferrite tiles & hybrid pyramid absorbers, optimises EMC measurement performance between 26 MHz – 40 GHz. These hybrid absorbers require less volumetric space than traditional absorbers (standard carbon loaded or thin film coated pyramids).

The advantages of our unique SmartShield High Performance shielding system are significant with performance in excess of 100 dB for most frequencies. The construction features of modular panels with RF connecting joints enable an easily demountable chamber. This is a major benefit for our customers where future relocations are necessary.

The EMC-MC is just one of a range of pre-defined EMC test chamber designs. Others include:

- EMC-3C (Compact 3 m test range)
- EMC-3 (Compliant 3 m test range)
- EMC-5 (Compliant 5 m test range)
- EMC-10 (Compliant 10 m test range)

Our vast management experience of more than 26 years combined with specialised design tools such as Solidworks 3D, allow us to offer our customers customized, turnkey capabilities. We are able to modify and develop our existing designs to meet any requirement you may have. With customer satisfaction as priority, our advanced development and production facilities, accredited to ISO 9001 & ISO 14001, ensure all products achieve low maintenance and long life.

Product configurations

Dimensions (shielding)	6 m x 3 m x 2.4 m
Performance range	26 MHz – 40 GHz
Emission performance	CISPR-16 pre compliant 3 m site
Immunity performance	EN 61000-4-3 pre compliant 3 m site
Standard equipment	SmartShield RF shielded room, raised floor Absorber lining: HyPyr-Loss™ Ferrite & Hybrid lining

QTY	TYPE
1	0.9 m x 2.1 m personnel door
1	Mains filter 240 V 50/60 Hz, 32 A
2	Attenuvents (300 mm x 300 mm)
1	Consumer unit
1	Single phase sockets
2	Lights
1	Penetration panels

Feedthrough interfaces include:

1	n-type connectors
1	BNC type connectors
1	Fiber optic penetrations (8 way)
1	Penetration tube w/ cap - 5 cm

Accessories	
	<ul style="list-style-type: none"> • Access doors- manual, semi & fully automatic • Turntable, Masts & Controllers • 3 phase mains filters • Control data/ line filters • Test and Measurement EMC systems • Air conditioning • CCTV & Audio system • Fire detection/suppression • Chamber validation/calibration • Control room • Amplifier room

Technical data

Pre compliance testing for Radiated Emissions	<ul style="list-style-type: none"> • ANSI C63.4 • FCC Parts 15 & 18 • EN 50147-2 • EN50011/CISPR 11 • EN550016/CISPR 16 • EN550022/CISPR 22 • VCCI V-3/2004.04 • 2004/104/EC-SAE J551 /CISPR25
Pre compliance testing for Radiated Immunity	<ul style="list-style-type: none"> • IEC 61000-4-3/EN61000-4-3 • 2004/104/ISO11452/EC-SAE J551, SAE J-1113
Quality standards	<ul style="list-style-type: none"> • ISO17025; ISO9001 • Environmental standard ISO 14001



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www.mvg-world.com
salesteam@mvg-world.com